

GXHT3W

Temperature and Humidity Sensor IC

1 Features

- 1 Wire protocol compatibility
- Wide supply voltage range (2.4 V ~ 5.5 V)
- DFN8 package (2.5×2.5×0.9mm³)
- Typical accuracy: humidity $\pm 3\%RH$, temperature $\pm 0.3^{\circ}C$
- Measurement range: humidity 0~100%RH, temperature $-45^{\circ}C \sim +130^{\circ}C$
- Factory calibrated, support reflow soldering
- With multi-point distributed temperature and humidity measurement function
- With user-defined non-volatile temperature alarm settings

2 Applications

- Communication equipment
- Photovoltaic energy storage
- Consumer electronics
- Cold chain transportation
- Smart home
- Smart agriculture



Figure 1. Chip Rendering

3 Description

The GXHT3W is a new generation of single-chip integrated temperature and humidity sensor, which integrates high-sensitivity MEMS humidity-sensitive components on silicon-based CMOS wafers, thereby reducing signal transmission interference, reducing device area and improving product reliability. The GXHT3W uses 1-Wire protocol to communicate with the host computer, only one signal wire and one ground wire are needed. It has a temperature measurement range of $-45^{\circ}C \sim +130^{\circ}C$. The test accuracy in the range of $-40^{\circ}C \sim +90^{\circ}C$ is $\pm 0.3^{\circ}C$. In addition, it can also work in parasitic mode and supply power to the device directly through the signal line, no additional power supply is required. Each GXHT3W has a globally unique 64-bit serial number. Multiple GXHT3Ws can be connected in series on the same 1-Wire for networking. One processor can control multiple GXHT3Ws distributed in a large area. This networking method is especially suitable for HVAC environmental control, construction, equipment, grain condition and industry, and process temperature and humidity monitoring and control.

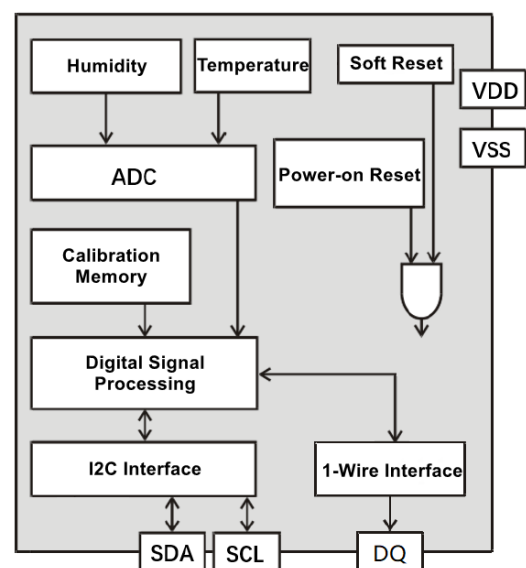


Figure 2. The GXHT3W block diagram

10 Chip description and Ordering information

Order number description:

GXHT3W-T&R: GXHT3W represents the product.number, T&R represents packaged form is tape and reel.

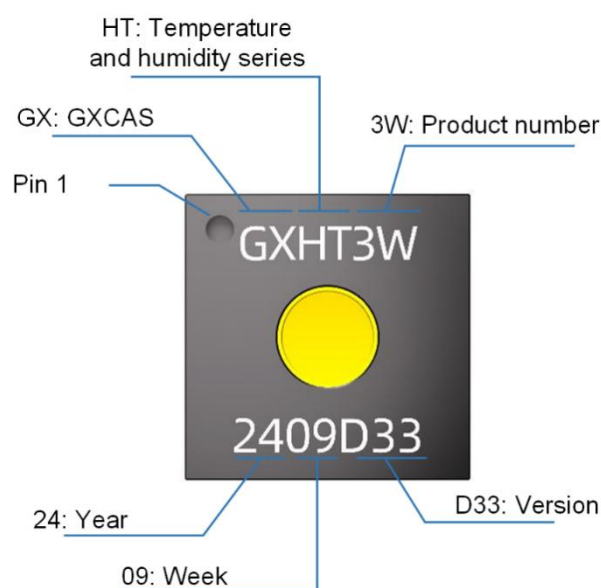
Model Coding:

(1) GXHT3W: GX represents the trademark of the company GXCAS, which can also be represented by G; HT represents temperature and humidity series products; 3W: represents the chip number

(2) GXHT3WC: GX represents the trademark of the company GXCAS, which can also be represented by G; HT represents temperature and humidity series products; 3W: represents the chip number; C: Indicates that the chip is covered with a dustproof and breathable film, which cannot be removed and provides protection for the chip.

(3) GXHT3WCF: GX represents the trademark of the company GXCAS, which can also be represented by G; HT represents temperature and humidity series products; 3W: represents the chip number; CF: Indicates that the chip is coated with a conformal coating film, which needs to be removed after Painting

GXHT3W LOGO description:



Ordering Information:

Purchase Number	Device	Package	SPQ	Note
GXHT3W-T&R	GXHT3W	DFN8 (2.5mm*2.5mm)	2000	Tape and reel
GXHT3WC-T&R	GXHT3WC	DFN8 (2.5mm*2.5mm)	2000	Tape and reel; covered with a dustproof breathable film
GXHT3WCF-T&R	GXHT3WCF	DFN8 (2.5mm*2.5mm)	2000	Tape and reel; covered with a conformal coating film